

AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all prior versions and listings in the application:

Listing of Claims

1-21. (Canceled)

22. (Currently amended) An apparatus for suppressing carrier feedthrough in a quadrature transceiver, the apparatus comprising:

- a first pair of summers;
- a quadrature modulator and an upconverter circuit coupled to the first pair of summers, each of the first pair of summers being operable to add one of the outputs of the quadrature modulator to one of a pair of transmitter path correction signals;
- a multiplexer coupled to the upconverter circuit, to a ground, and to an RF front end;
- a downconverter circuit coupled to the multiplexer;
- a second pair of summers coupled to the downconverter circuit, each of the second pair of summers being operable to add one of the outputs of the downconverter to one of a pair of receiver path correction signals; and
- a correction circuit coupled to the first and second pairs of summers, the correction circuit performing a first correction method to determine the pair of receiver path correction signals, and performing a second correction method to determine the pair of transmitter path correction signals, and using the pairs of receiver path and transmitter path correction signals to suppress carrier feedthrough in the quadrature transceiver, the correction circuit comprising, a pair of averaging circuits coupled to the second pair of summers, a pair of absolute value circuits coupled to the pair of averaging circuits, a summer coupled to the pair of absolute value circuits; and a search circuit coupled to the summer.

23. (Canceled)

24. (Currently Amended) The apparatus of claim [[23]] 22, the search circuit comprising a binary search circuit.

25. (Currently Amended) The apparatus of claim ~~[[23]]~~ 22, further comprising a feedback DC calibration circuit coupled to the pair of averaging circuits.

26-30. (Canceled)